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Mason's Journey (Continued)

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Mason's Journey (Continued)

Abstract

Essay and map of the logbook of Charles Mason used on his 1761 voyage to observe the transit of Venus.

Keywords

Charles Mason, Transit of Venus, Mapping, Longitude

Disciplines

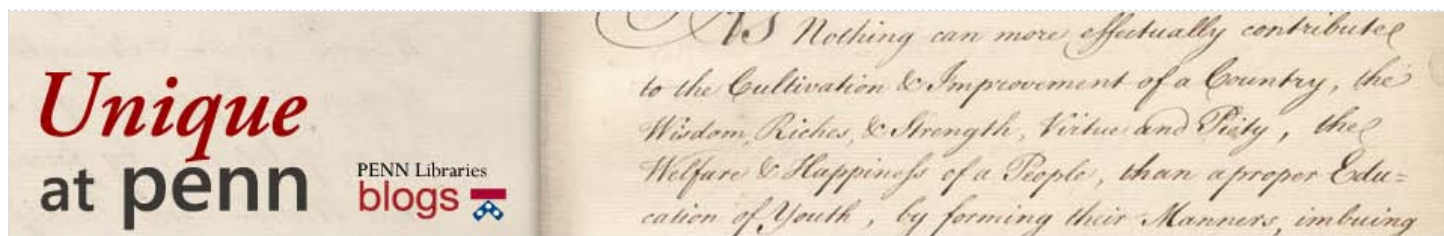
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28

Friday
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Mason's Journey (Continued)

POSTED BY MITCH FRAAS IN POSTS

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I thought I'd follow on Nancy's excellent [post](#) on the Mason manuscript uncovered at Penn with a few geographical illustrations of Mason's journey and his scientific observations. What Mason chose to record in his journal seems befitting of an 18th c. scientific traveler. He noted weather conditions nearly every day as well as animal sightings, like his entry for [March 17, 1761](#) "Saw two Grampo's blowing water" ([Grampus Griseus](#) – a species of Dolphin) or that of [March 12](#): "Caught a shark 9 feet long." Only occasionally does the human drama of life at sea enter into the log, most notably on March 28, 1761 when he tragically notes "Blackmoor Seaman fell over board & was drown'd in my sight & most of the ships Company" [\[1\]](#) . However, the vast majority of entries in the log concern finding the location of the ship. Almost every day at noon Mason took latitude measurements based on the height of the sun and recorded them in his log along with a reckoning of latitude based on the course and speed of the ship from its last known certain latitude (e.g. at a port).

Latitude though provides only limited information about location at seas and as Nancy noted in her post, measuring longitude was considerably more problematic. Mason recorded longitude only a few dozen times in his logbook. He calculated these measures based on two different methods, the first involving the crude dead reckoning process derived from the course, heading, and speed of the ship (measured with a log line). I've plotted below those 42 days where Mason recorded both Longitude and Latitude in his log. I've given each ship its own color, red for the *Seahorse* (from Plymouth to Cape Town), yellow for the *Mercury* (Cape Town to St. Helena), and blue for the *Prince Edward* (St. Helena to Plymouth). Clicking on the map below will take you to a larger map with clickable points for each of the mapped entries including page images and dates.

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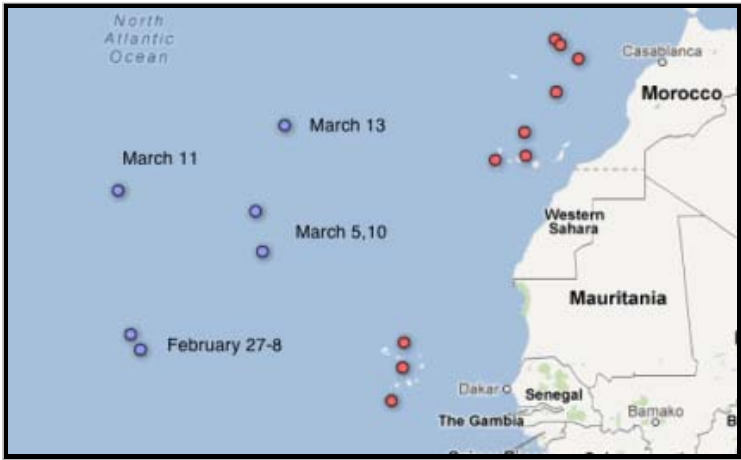
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Though Mason recorded his longitude calculations in the familiar Degrees, Minutes, (and more rarely) Seconds format, he did so not always from the meridian of Greenwich. At various points in the log he records degrees of longitude from the Scilly Isles, the **Lizard** (a prominent landmark in Cornwall), St. Helena, Cape Town, London, and Greenwich. I had to convert these measurements to distance from Greenwich by adding or subtracting the degree distance of these locations from today's meridian after converting to decimal degrees.

The problems in standard methods of computing longitude can be seen pretty clearly in the following illustration:



Mason's observations on February 27-8 and March 11 were made using lunar tables and latitude measurements, those on March 5,10, and 13 by reckoning from previous marks. It's astounding how far off these measures are from each other.

Mason hoped to prove the viability of measuring longitude based on lunar observations and at the **end of his log** provided figures for the last week of his return voyage; one set for each day based on lunar-

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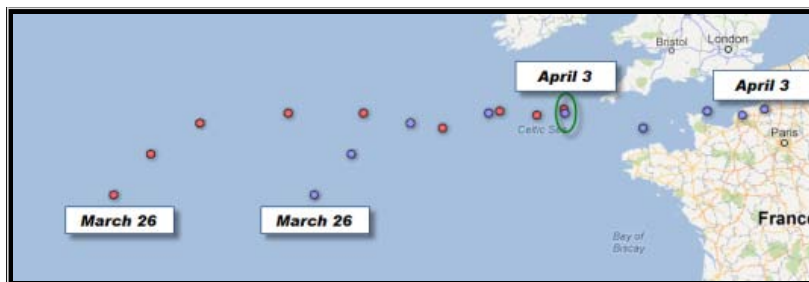
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derived longitude (red), the other on dead reckoning (blue).



As you can see, those measurements based on reckoning would have put the ship in mainland France whereas those by lunar measurement were much closer to their intended goal of the Scilly Isles which the ship reached on April 3rd.

[1]

See the entry [here](#). Possibly a lascar (general term for seaman of South Asian and/or African descent).

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About Mitch Fraas

[Mitch Fraas](#) is the Scholar in Residence at the Kislak Center for Special Collections, Rare Books and Manuscripts at the University of Pennsylvania Libraries. He is also the interim director of the Penn digital humanities forum. At Penn, Mitch works on a variety of projects cutting across general and special collections, with a special focus on digital humanities. He holds doctoral and master's degrees in history from Duke University and earned his bachelor's degree at Boston College. His doctoral dissertation examined the legal culture of British India in the 17th and 18th centuries, arguing for the existence of a unified early modern British imperial legal culture whether in Philadelphia, Bombay, or London.

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THOUGHTS ON “MASON’S JOURNEY (CONTINUED)”

Pingback: [My Five: Top Digital Humanities Tools from Mitch Fraas – Apps On Tap](#)



Mary Gu said:

February 19, 2013 at 3:23 pm

Reblogged this on [What exit are we supposed to take?](#) and commented:
I’ve been reading more about digital humanities and thinking a bit about the visual component of humanities research. Mapping is definitely a really enriching way of expanding the experience of a text.

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